

Work Order ID 131382

Tuesday, April 07, 2015 7:24:31 AM

131382

Page 1

Item ID: D130-700-021

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bearpaw Wearplate

Start Date: 4/7/2015 Start Qty: 2.00

2

Cust Item ID:

Required Date: 4/7/2015 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals: Process Plan: *MLJ*

Date: *15-04-07* Tooling:

Date:

Run Start ***NR1***

QC:

Date: SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI 9434	A	DAS 27 9-89						<i>MLJ</i> JUL 06 2015	DAS 02 JUL 06 2015
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and type labels per PPP D130-700-021 and DSI9434 CHG 001								
105	Pick Kit	0.00							
105									
Packaging	Memo	0.00							
Packaging									
110	QC4- 100% Inspect kits for completeness	0.00							
110									
QC	Memo	0.00							
Quality Control									

DAS
27
JUN 23 2015

DAS
02
JUL 06 2015

DAS
02
9-89
JUL 06 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : ☐									

Work Order ID 131382

Tuesday, April 07, 2015 7:24:31 AM

131382

Page 2

Item ID: D130-700-021

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bearpaw Wearplate

Start Date: 4/7/2015 Start Qty: 2.00

2

Cust Item ID:

Required Date: 4/7/2015 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Packaging	0.00							
120									DAS
Packaging	Memo	0.00							02
Packaging	Identify and pack for shipping as per PPP D130-700-021 and DSI9434								9-89
	Location: <u>128</u>								JUL 06 2015
	PPP Rev: _____								
130	QC21- Final Inspection - Work Order Release	0.00							
130									
QC	Memo	0.00							
Quality Control									JUL 06 2015

MLJ
JUL 06 2015
MLJ
JUL 06 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Tuesday, April 07, 2015 7:24:38 AM

Page 1

131382

D130-700-021

Required Date: 4/7/2015

Required Qty: 2.00

Comments: IPP Rev:A 10.12.09 as per dsi revA DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN4-12A *AN4-12A* Bolt DAS 02 9-89		Purchased	No			105	Each	260.0000	4	8		DAS 27 9-89	DAS 6 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				FG		10							
				120423		10							
				ST344		250							
				<u>m131957</u>		250							
AN4-15A *AN4-15A* Bolt DAS 02 9-89		Purchased	No			105	Each	230.0000	8	16		DAS 27 9-89	DAS 6 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		38							
				120449		38							
				ST325A		192		m132317					
				m130358		8							
				m131320		84							
				m131957		100							
D3862-041 *D3862-041* Wearplate DAS 02 9-89		Manufactured	No			105	Each	5.0000	2	4		DAS 27 9-89	DAS 6 9-89
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ENG		1		B131383					
				127742		1							
				ST613		4							
				<u>127742</u>		4							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Tuesday, April 07, 2015 7:24:38 AM

Page 2

Work Order ID: 131382

Parent Item: D130-700-021

Parent Item Name: Bearpaw Wearplate

131382

D130-700-021

Start Date: 4/7/2015

Required Date: 4/7/2015

Start Qty: 2.00

Required Qty: 2.00

MS21042L4

Purchased

No

105

Each

2,152.000

12

24

MS21042L4

Locknut

DAS
02
9-89

Location

Loc Qty

Loc Code

FP001

42

m124231

42

GA

634

m127813

634

ST260a

923

m130799

56

m131803

867

ST305

553

426

426

m128300

8

m128798

10

m130922

97

m131618

12

m132123

24

DAS
27
9-89

DAS
6
9-89

NAS1149D0463J

Purchased

No

105

Each

1,629.000

12

24

NAS1149D0463J

WASHER

DAS
02
9-89

Location

Loc Qty

Loc Code

CA

397

M129682

397

GA

136

M129390

136

ST269

1096

M130799

507

M131624

589

m132317

24

DAS
27
9-89

DAS
1
9-89

JUN 23 2015

Tuesday, April 07, 2015 7:24:38 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D130-700 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D130-700 REV. 0
REF. TCCA STC: SH93-4
REF. FAA STC: SR00028NY
REF. EASA STC: EASA.IM.R.S.01389

The D130-700-021 Wearplate kit can be installed on D130-700-011 Bearpaw installations. The D3862-041 Wearplates should be installed on the D3167-1 Bearpaws as shown in Figure 1 on Sheet 2 of this Service Instruction. The Bearpaws should otherwise be installed on the skidtube per installation instructions IIN-D130-700 Rev A.

Customers with old style bearpaws will need to rework the counterbore on the bottom of the bearpaws per Figure 1 on Sheet 2 of this service instruction.

WEIGHT AND BALANCE

Installation	Weight	Lateral		Longitudinal	
		Arm	Moment	Arm	Moment
D130-700-021 Wearplate Kit	3.22 lb 1.46 kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-kg	159.8 in 4.05 m	514.6 in-lb 5.91 m-kg

PARTS LIST

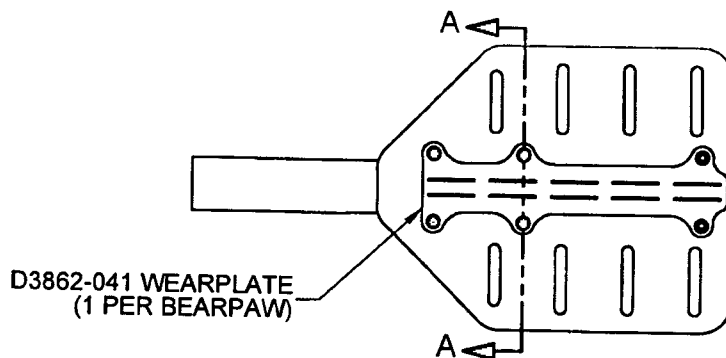
QTY. -021	PART NUMBER	DESCRIPTION
X	D130-700-021	Wearplate Kit
2	D3862-041	Wearplate
4	AN4-12A	Bolt
8	AN4-15A	Bolt
12	NAS1149D0463J	Washer
12	MS21042L4	Nut or (MS21042-4)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)
DATE: 09.01.15
CERT. NO.: SH93-4
ISSUE NO.: 7

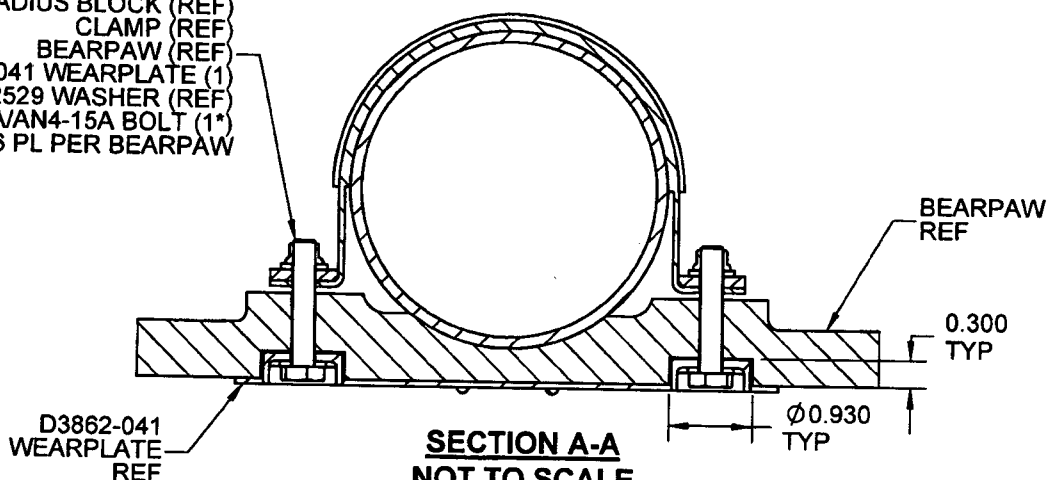
1313-85 MCT
1504-07

A	NEW ISSUE	BY: 	09.01.15
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9434	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		WEARPLATE KIT	NTS
DATE	09.01.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



BOTTOM VIEW

MS21042L4 NUT (1)
 NAS1149D0463J WASHER (1*)
 D2274 RADIUS BLOCK (REF)
 CLAMP (REF)
 BEARPAW (REF)
 D3862-041 WEARPLATE (1)
 D2529 WASHER (REF)
 AN4-12A/AN4-15A BOLT (1*)
 6 PL PER BEARPAW



* ADDITIONAL NAS1149D0463J WASHERS MAY BE INSTALLED UNDER NUTS TO ENSURE 1.5 - 4 THREADS IN SAFETY ON BOLTS. ALTHOUGH NOT GENERALLY NECESSARY, IT IS ALSO ACCEPTABLE TO REPLACE THE AN4-12A/15A BOLTS WITH LONGER OR SHORTER AN4 BOLTS, IF REQUIRED.

FIGURE 1: D130-700-021 WEARPLATE KIT

CANADA
 DEPARTMENT OF TRANSPORT
 AIRCRAFT CERTIFICATION
 BRANCH
 DAO # 01-O-01

APPROVED

BY: *[Signature]*
 D. SHEPHERD (DE # 02)

DATE: 09.01.15
 CERT. NO.: SH93-4
 ISSUE NO.: 7

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO. DSI 9434	REV. A
MFG. APPR.	N/A		SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE WEARPLATE KIT	SCALE
DE APPR.	<i>[Signature]</i>		NTS
DATE	09.01.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

5 PARTS LIST

Qty -011	Qty -021	Part Number	Description
X		D130-700-011	BEARPAW INSTALLATION
	X	D130-700-021	WEARPLATE KIT
4		D2182B060	Rubber Cushion
12		D2274	Radius Block
12		D2529	Washer
4		D2519	Clamp
2		D3167-1	Bearpaw
4		D3171-1	Angle
	2	D3862-041	Wearplate
4	4	AN4-12A	Bolt
8	8	AN4-15A	Bolt
12	12	NAS1149D0463J	Washer
12	12	MS21042L4	Nut (or MS21042-4)